OR-15

SEARCH FOR BITARGET HDACi AND VEGFR-2 PREPARATIONS BASED ON A COMBINATION OF QUINAZOLIN-4(3H)-ONE DERIVATIVES VIA A LINKER WITH HYDROXAMIC ACID

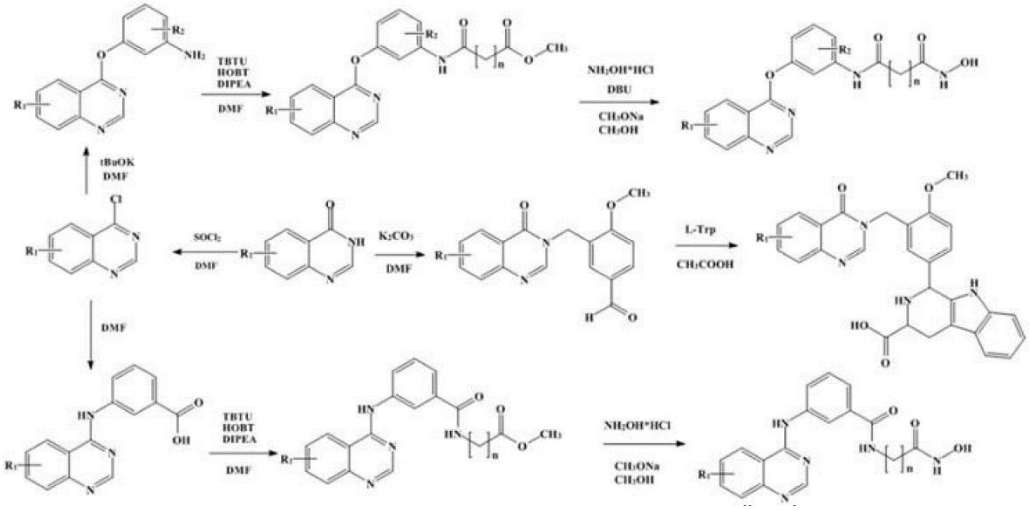
E.D. Bondarenko,[1,2] A.R. Mavlianberdiev,[1,2] A.V. Kolotaev,[2] V.N. Osipov,[2,3] A.N. Balaev,[4] D.S. Khachatryan[2]

[1]D. Mendeleev University of Chemical Technology of Russia, 125047, Russia, Moscow, 9 Miusskaya Sq.
[2]NRC "Kurchatov Institute"– IREA, 107076, Russia, Moscow, 3 Bogorodsky Val.
[3]NMRC of oncology N.N. Blokhin, 115478, Russia, Moscow, 23 Kashirskoye Sh.
[4]JSC "Farm-Synthesis", 121357, Russia, Moscow, Vereiskaya St., 29, b. 134.
E-mail: djedaj12@mail.ru

Abstract. Chemistry of hydroxamic acids is an intensively developing field of organic chemistry. Histone deacetylase enzymes (HDAC) exist that catalyze the removal of the histone ε-N-acetyl-lysine acetyl group.[1] Hydroxamic acids are able to inhibit these enzymes.

Quinazolinones are also of great interest due to their pharmacophore properties. In particular, quinazolinones are tyrosine kinase inhibitors (VEGFR-2).[2,3]

A promising direction today is the synthesis of drugs that combine in their composition the properties of the two described groups.



Picture 1. Synthesis of bifunctional compounds based on quinazolinones and hydroxamic acids. R_1 = H, CH_3, OMe, Br; R_2 = H, F; n = 4-6.

In work it was discusses a strategy for creating bifunctional inhibitors, where hydroxamic acids are linked to qinazoline fragment. Various compounds of this type have been prepared that are potentially antitumor agents with dual targeting for HDAC and VEGFR-2.

References

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